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ABSTRACT

This report investigated a random sample of 54 (divided equally between male and female) full-time regular education faculty actively engaged in classroom activities at Western Michigan University in Venezuelan postsecondary education to learn: (1) their satisfaction levels with their role functions of teaching, research, and service; and (2) if there were differences between male and female respondents regarding teaching, research, and service. Data were collected using the English version of the Faculty Satisfaction Questionnaire. Two major hypotheses were tested using a correlation coefficient and the t-test for differences. Significant differences were found between female and male respondents when they were asked about their satisfaction with teaching with males expressing more satisfaction with their teaching role. No differences were detected regarding satisfaction with research and service in either group. Both males and females seemed equally satisfied with their research activities and with their service involvement. The correlations discovered support the literature in which positive and low correlations have been reported between teaching and research. Service remained undefined. Contains 18 references. (GLR)

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The Satisfiers of Education Faculty at Western Michigan University

Paper Presented At

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College of Education
Western Michigan University

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Teaching, Research, and Service: The Satisfiers of Education Faculty at Western Michigan University

Ana Gil Serafin, Ed.D.

Abstract

In December 1991, the researcher selected a random sample of full-time regular education faculty actively engaged in classroom activities to learn (1) their satisfaction levels with their role functions of teaching, research, and service; (2) if there were differences between female and male respondents regarding teaching, research, and service. Data were collected using the English version of the Faculty Satisfaction Questionnaire (FSQ), which was originally constructed in Spanish to gather information from higher education faculty in Latin American institutions. Items included in the FSQ provided new evidence of the validity and internal consistency reliability of the measures (Teaching eleven items r =.81; Research nine items r = .76; and Service nine items r = 78).

Two major hypotheses were tested using a correlation coefficient (Pearson r) and the t-test for differences. Significant differences were found between female and male respondents when they were asked about their satisfaction with teaching. No differences were detected regarding satisfaction with research and service in either group. Positive low correlations were found between (1) satisfaction with teaching and satisfaction with research (r = +.44), (2) satisfaction with teaching and satisfaction with service (r = +.63), and (3) satisfaction with research and satisfaction with service (r = +.57).

In this study, male faculty seem more satisfied with their role function of teaching than females. Both, male and female seem equally satisfied with their research activities and with their service involvement. The correlations discovered support the literature in which positive and low

correlations have been reported between teaching and research. Service remains undefined. Very little research reinforces the findings of this study in the area of service.

"Like men, the women faculty speak with many voices: of the joys of teaching, the deep satisfaction of scholarship, the pride of publishing"

Brakeman & Loring, 1988

The relative importance on teaching, research, and service, is a much discussed topic in academia. However, a new dimension has been added. Gender has emerged as a new issue in this discussion. The question injected into this dialectic becomes: Are teaching, research, or service more attractive to particular genders? All answers may be positive or negative. What appears to be valid is that faculty, whatever sex, have expressed preferences for some aspects of their role functions. While examining the literature related to satisfaction in higher education professors it was found that teaching itself (i.e. classroom planning, content area, evaluation strategies, instructional techniques, etc.) is commonly a source of satisfaction (Bowen & Schuster, 1986; Boyer, 1987; Clark, 1985; Cross, 1977; Mckeachie, 1982). Also, research is perceived as the academic role of the professorate (Boberg & Blackburn, 1983; Ladd,1979). Teaching and research are generally reported as the most satisfying elements of academic work (Pearson & Seiler, 1983).

Research studies into the relationship between teaching, research, and service report inconclusive findings. Little exploration has taken place on the matter of satisfaction as it interacts with gender on these functions. Research supports the notion that females are less satisfied in their academic environment than men (Armour, Fuhrman, & Wergin, 1990). However, in respect to a specific role function such as teaching faculty women are more satisfied than men (Armour et.al, 1990; Cliff, 1975). What is congruent is that teaching as a professional career is perceived as gender-related. Yet, satisfaction in academia has a gender relationship (Balazadeh, 1981; Carleo, 1989; Grahn, Khan, & Kroll, 1982; Hill, 1987; Karoonlanjakorn, 1986; Sprague, 1974).

Research in the area of service is almost unknown. Due to the diversity of definitions, service is generally understood as a professional development issue. Outside and inside academic activities are part of these commitments

which may satisfy faculty in their work (Woodrow, 1978). It is generally believed that females are less involved in service activities than men. However, Brakeman and Loring (1988) reported that the percentage of women faculty attending professional development activities is twice as high as the percentage of men. Despite these reports, it seems that there are more variables to investigate in the relationship between gender and service satisfaction.

This report collected data from full-time regular education faculty to examine differences between females and males and the interrelations among the functions of teaching, research, and service. The data were provided by a total of 54 survey respondents who were full-time regular faculty. Regular faculty were defined as those who held regular full-time appointments as opposed to part-time, adjunct, or visiting appointments. Of the 54 full-time faculty respondents, 27 were women.

Because of the relative small number of questionnaires initially returned, it was necessary to mail a reminder letter and to personally contact those who had not responded. The original randomly drawn sample was of 90 members of the faculty. Thirty percent of the sample did not respond. The follow-up effort solicited two more questionnaires and information on regarding the relatively low response rate. The primary reason cited was the Christmas vacation. Two faculty members were on sabbatical leave. Three had taken midyear retirement, and two professors were on leave of other types.

For the analysis comparing women and men, three categories of position function were used: teaching satisfaction, research satisfaction, and service satisfaction. For the analysis interrelating teaching, research, and service a total value of satisfaction was examined and correlations were determined.

Instrument Description

In the survey questionnaire, faculty were asked to respond to a variety of items designed to determine their satisfaction levels with their functions of teaching, research, and service in their college. Scales representing

general measures of teaching satisfaction, research satisfaction, and service satisfaction were constructed by standardizing and summing responses to these items. The teaching satisfaction measure was constructed from eleven items, yielding an internal consistency reliability of .81. The research satisfaction measure was constructed from nine items with a reliability of .76, and the service satisfaction measure was constructed from nine items yielding an internal reliability of .78. The specific items making up each scale are listed in the appendix.

The Faculty Satisfaction Questionnaire was built originally in Spanish to determine the degree of satisfaction of Latin American university faculty. Faculty satisfaction was defined as the affective congruence toward one's work when the elements of the position (teaching, research, and service) fulfill desired expectations. The position function was understood as a set of aspects inherent to the functions of a faculty member which are related to the teaching, research, and service.

In 1989, after a systematic validity process, FSQ items were pilot tested in two teacher colleges located in Caracas, Venezuela. In the first stage, thirty full-time regular faculty were randomly selected and agreed to participate in the field study. In 1990, data were collected in seven Venezuelan teacher colleges (field study II). Later, in 1991 more data were gathered in San Jose, Costa Rica (field study III) corroborating the Venezuelan findings regarding internal reliability. Field study IV represents the findings with faculty in the United States. The results of this effort are reported in Table 1.

Table 1

Results of Field Study

Field	Country	N	Teaching	Research	Service
I	Vzla	30	r=.85	r=.80	r=.85
II	Vzla	234	r=.76	r=.86	r=.83
III	Costa Rica	94	r=.80	r=.82	r=.82
IV	USA	54	r=.81	r=.76	r=.78

The evidence of sufficient reliability of the measures was established at all sites. No changes in the instrument or procedures were made based on the field tests. In addition, the item-total correlation among items was always positive, reinforcing the viability of the FSQ. In the following tables a summary of the item responses for each function is presented.

Table 2

Summary of Responses to Teaching Statements

Items	Mean	SD	% VS-S	% VD-D
Professional career	4.35	.91	90.8	1.9
Classroom activities	4.31	.88	92.6	1.9
Academic freedom	4.72	.59	96.3	1.9
Examinations	4.03	.84	74.0	3.7
Evaluation procedures	3.66	1.11	63.0	1.9
Teaching methods	3.83	1.00	70.4	14.8

Table 2 continued...

Advising	3.40	1.29	53.7	7.4
Facilities	2.57	1.28	24.1	16.7
Class size	2.98	1.35	42.6	61.1
Teaching workload	3.33	1.14	59.2	37.1
Teaching rewards	2.72	1.17	22.3	14.9

The response regarding teaching as a career was as anticipated. Ninety-one percent of the respondents were in agreement regarding the level of satisfaction produced by belonging to this profession. In addition, 96.3% felt satisfied with the academic freedom to select and decide the design, content, objectives, and instructional materials of the courses they taught. On the opposite side, class size seems to affect the satisfaction levels of College of Education professors at Western Michigan University. Sixty-one percent expressed being dissatisfied with the number of students per class. The overall mean for this scale was 39.94 and the standard deviation 7.08. This is reinforced by the overall item means of 3.63. The direction of the responses was toward the positive side of the scale. The teaching activities, actions, conditions, and/or functions seem to satisfy these education faculty.

Table 3

Summary of Responses to Research Statements

Items	Mean	SD	% VS-S	% VD-D
Financial support	2.94	1.03	27.8	42.6
Release time	2.40	1.20	16.7	85.3
Publishing	3.22	.98	44.5	27.8
Sabbatical leaves	3.37	1.08	40.7	9.3
Technical assistance	2.92	1.11	33.3	14.9

Table 3 continued...

Computer facilities	3.50	.98	55.5	5.6
Secretarial help	2.55	.96	22.2	66.7
Dept. motivation	3.12	1.15	38.9	38.9
Research rewards	3.07	.90	25.9	9.3

The overall responses for scale of the research statements showed that with a mean of 27.12 and a standard deviation of 5.56, the full-time regular faculty seem to have a homogeneous opinion about their feelings regarding research activities developed in the College of Education. The release time offered by the institution for research was seen as a very dissatisfying factor. Next, the secretarial and technical assistance was second in the line of dissatisfaction among 66.7% of faculty responses. Fifty-five percent of the respondents reported being satisfied with the computer facilities for processing data. Also, it is important to note that 44.5% of faculty are satisfied with the opportunities to publish. In sum, the total of item means was equal to 3.01, showing positive alignment toward satisfaction with research actions, conditions, and functions.

Table 4

Summary of Responses to Service Statements

Items	Mean	SD	% VS-S	% VD-D
Outside opportunities	3.96	.75	74.1	1.9
Career development	3.09	1.15	50.0	36.3
Committees	3.05	.85	31.5	24.1
Consulting	3.44	1.02	44.4	16.7
School-WMU Coop	3.27	.99	35.2	26.7

Table 4 continued...

Inservice training	3.37	.93	40.8	14.9
Faculty meetings	3.27	.78	38.9	13.0
Professional meetings	2.64	1.20	29.6	57.4
Service rewards	2.48	.90	9.3	50.8

It was observed that 74.1% of the surveyed professors were satisfied with the opportunities outside the university for participating in new developments in their specific fields. Also, the departmental efforts in support of the career development was perceived as a satisfying factor by 50.0% of the respondents. However, 57.4% of full-time regular faculty expressed their dissatisfaction with financial and academic support for making presentations, attending conferences, seminars, etc. The overall mean response for this scale was 28.61. The standard deviation was 5.31. The total item mean was 3.17. In both cases, the responses given by the respondents were located on the satisfying side of the scale.

Results

Research question one, concerned with the interrelations of professors' satisfaction with their role function of teaching, research, and service across education departments of the College of Education at Western Michigan University, was tested by using three Pearson product-moment correlations. Null hypotheses one, two, and three state that the Pearson product-moment correlation (PPMC) between teaching satisfaction with research satisfaction and service satisfaction, and research satisfaction with service satisfaction would be equal to zero.

Table Five reports that the Pearson product-moment correlation coefficients based on teaching satisfaction with research satisfaction and service satisfaction were significant beyond.05 alpha level ($p < .0001$) with

coefficient alpha values in parentheses on the diagonal. The correlation coefficient between teaching satisfaction scores and research satisfaction scores was smaller than teaching satisfaction scores with service satisfaction scores, respectively. However, the three position functions are correlated to each other. The correlation coefficient between teaching satisfaction and research satisfaction showed a positive relationship ($r = +.44$) for the full-time regular faculty across the College of Education at WMU. The correlation coefficient between teaching satisfaction with service satisfaction resulted in a positive relationship ($r = +.63$). The correlation coefficient of $r = +.57$ shows a positive linear relationship between research satisfaction and service satisfaction. These facts provided sufficient evidence to reject all three null hypotheses.

Table 5

Interrelations Between Teaching Satisfaction, Research Satisfaction, and Service Satisfaction (N= 54)

	Measures		
	Teaching	Research	Service
Teaching	(r= .81)	r= +.44 p <.0001	r= +.63 p <.0001
Research		(r= .76)	r= +.57 p <.0001
Service			(r= .78)

Note: Cronbach Coefficient values are in parentheses

The second analysis uses data from a total of 27 (50%) male and 27 (50%) female faculty. They were compared in terms of their mean satisfaction scores for teaching, research, and service role functions. A two-tailed t-test for independent means was used to learn whether the degree of women education faculty satisfaction with their role functions differed from a comparable group of men. In testing the null hypotheses of no differences between both

groups, the assumptions of independent samples and homogeneity of variance were considered. Information about the planned comparisons (means, standard deviations, and sample sizes) is shown in Table 6.

Table 6

Descriptive Statistics of Gender Satisfaction

	Male (N=27)		Female (N=27)	
Measures	Mean	SD	Mean	SD
Teaching	42.55	7.17	37.33	6.05
Research	28.03	6.32	26.22	4.61
Service	29.37	5.94	27.85	4.58

Three hypotheses stating differences between male and female faculty were tested against the null hypotheses of no differences in satisfaction with the role functions of teaching, research, and service. So as to hold the overall Type I error rate, each comparison was made using an .05 alpha level.

Teaching satisfaction for female education faculty did differ significantly from male faculty, $t = 2.89$, $p<.05$. Further, satisfaction differences between groups were also found to not be significant, $t = 1.20$, $p>.05$. Regarding service satisfaction in female faculty, no differences were detected when compared to male faculty, $t = 1.05$, $p>.05$. In these three cases, it was hypothesized that female subjects would be as satisfied as male individuals in performing their role functions of teaching, research, and service. However, a two-tailed test showed strong differences only between males and females about their academic role practices of teaching. Thus, null

hypothesis one was rejected, while hypotheses two and three were supported. Table Seven summarizes the t-test data.

Table 7

t-test Summary Data

Role Function	t-test obs.	t-test cv	2-tail p
Teaching	2.89	2.00	.006*
Research	1.20	2.00	.234
Service	1.05	2.00	.298

* p <.05

The observed value of t (teaching t = 2.89) did exceed two (2.00). Therefore, the argument that differences exist between female and male education professors was supported. In respect to the functions of research and service, the observed value of t (research t = 1.20 and service t = 1.05) did not exceed tcv (2.00 in each function); therefore, anticipated differences in gender satisfaction regarding these two functions were not found.

Discussion

This analysis of gender differences in faculty satisfaction with the position functions of teaching, research, and service suggests that faculty may be equally satisfied in performing the role functions of research and service. However, male faculty seem more satisfied than female professors in respect to teaching activities. These findings, reject the general belief that teaching is seen as a female-oriented role. At Western Michigan University, in the College of Education, full-time regular male academicians expressed their satisfaction with these activities, conditions, and/or

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functions which make up the teaching function. Men were considerably more likely than women to express satisfaction in areas such as teaching as a professional career, constructing examinations, designing curriculum, academic freedom, teaching methods, and specialized facilities. Although sample size was too small to allow for simultaneous control of the relevant variables, it appeared that women faculty were having a more difficult time achieving and internalizing the components of teaching than men.

Teaching and research are key factors in the discussions and arguments of faculty. It is too strong a statement to that a good teacher is a good researcher or vice versa. What is true is that both functions are complementary to each other. However, the research in the relationship between teaching and research are inconclusive. Studies supporting no relationships have occurred as often as those showing a positive relationship. It is interesting to note, however, that the positive relationships found between teaching and research have usually been small and weak. In the area of satisfaction with these functions, findings have led to similar conclusions. Teaching satisfaction and research satisfaction are correlated positively. This research reinforces and corroborates a low correlation.

Budgetary restrictions will likely arrest any attempt to separate these two functions. The differentiated staffing movement in academia would reinforce a deeper fissure between the so-called first class (researchers) and second class (teachers) faculty members than already exists. Teaching and research must maintain their marriage. The literature discourages separation, and encourages more relationships.

Conclusions

The following conclusions are based upon data gathered in the study, and from literature reviewed by the researcher. However, the reader should be cautious about the generalizability of the study due to research delimitations. It can be said, then, that:

1. In this study, full-time regular male faculty at the College of Education of Western Michigan University appeared more satisfied with their role function of teaching than their female counterparts. Specifically, there was a significant difference ($p<.05$) between male and female professors in performing all those components, actions, conditions, and/or functions of teaching. Males scored higher means than females. Clearly, all these factors may be affected by many other variables (e.g.,tenure status, educational background, academic rank, publication rates, etc.).

2. Research and service activities equally satisfying to male and female education faculty. Differences were not detected in these groups. The mean scores reported in both groups differed only slightly. In both cases, the null hypotheses predicting no differences between groups could not be defended. Again, other variables may have influenced these findings. The literature direction however, has shown that male academicians are more likely to be satisfied than female faculty in conducting research. Service needs to be more clearly explained and defined so as to reach common understandings when conducting research in this area.

3. The increased prestige of Western Michigan University as a research institution has created confidence in those faculty whose basic orientation is research. However, other faculty whose primary interest is teaching may feel fear and pressure from the changes in the work environment. However, findings seem to suggest an equal level of faculty satisfaction with research and service activities.

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